

# **LHMP ANNEX**

## **Jefferson Union High School District**

### **Daly City, California**

#### **Introduction**

The Jefferson Union High School District (JUHSD) is a small-sized school district at the north end of San Mateo County that borders San Francisco, California. The District's boundaries include the cities of Pacifica, Daly City, Colma, and Brisbane. The 9<sup>th</sup> through 12<sup>th</sup> grade student population, which totals in excess of 5,400, is composed of approximately 25% Hispanic, 29% Filipino, 24% Caucasian, 15% Asian Pacific Islander, and 6% African American. 407 day school students who certified Limited English Proficient (LEP) are also receiving services. The District provides special education services to approximately 400 students.

The District operates three comprehensive high schools, one restructured high school, one continuation high school, and multiple alternative programs. Our restructured school is affiliated with the Coalition of Essential Schools. The District also provides an extensive adult education program. All schools are fully accredited by the Western Association of Schools and Colleges. Recent modernization work has provided updated school facilities at all campuses including extensive technology improvements.

The District Governing Board is comprised of five members elected from the community. The District is managed by the Superintendent and assisted by a Deputy Superintendent, an Associate Superintendent and four Directors. There are approximately 290 certificated staff members and 225 classified employees.

The District's annual budget is \$43 million including all Federal and State programs. The District has also been successful in acquiring private foundation grants.

Based on the 2000 census, the population of these cities is:

- Daly City 103,621.
- Pacifica 38,390.
- Brisbane 3597.
- Colma 1191.

Each City provides separate local police services; however, the fire services are supplied by a consolidated North County Fire District.

#### **The Planning Process**

The process of preparing this plan is somewhat familiar to JUHSD staff. The District has an Emergency & Disaster Preparedness Plan to its Board Policy [3516 (a)] that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the District routinely enforces the requirements of the California Environmental Quality Act (CEQA). The District continues to evaluate, on an on-going basis, these programs in order to identify any gaps that

may lead to disaster vulnerabilities so that it can work on ways to address these risks through mitigation. The District also has a “Statement of Understanding” with the American Red Cross Bay Area in order to provide temporary mass care shelters for victims of disasters.

Many of the activities conducted by the District were fed into the planning process for the multi-jurisdictional plan. The District participated in various ABAG workshops and meetings, including a special session to design policies related to education on December 16, 2004. In addition, the District has provided written and oral comments on the multi-jurisdictional plan.

Key District staff and one San Mateo County employee met on two occasions to identify and prioritize mitigation strategies appropriate for the District. Staff involved in these meetings included the Superintendent; Associate Superintendent of Business; Director of Operations, Maintenance, Health & Safety and Transportation; San Mateo County Safety Director, and Special Projects Administrator. At the first meeting, the general priorities for District were identified. The second meeting identified preliminary budgets and potential funding sources for strategies designed as “High” priority. The District provided the opportunity for the public to comment on the DRAFT mitigation strategies selected by District staff at the Board of Trustees regular meeting on March 15, 2005. The resolution adopting the plan and strategies will be on the District’s agenda for late April. The mitigation strategies will become an implementation appendix to this Safety Element.

## **Hazard and Risk Assessment**

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought).

While the District has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the District, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

The District has had a number of landslides on the hills within the Oceana and Terra Nova High School campuses, including one that caused significant damage in 1982. This additional hazard information was included at the Board of Trustees regular meeting held on March 15, 2005.

Information on disasters declared in San Mateo County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The District examined the hazard exposure of District’s land based on the information on ABAG’s website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of approximately 236 urban acres in the District;

- ◆ Jefferson High School, Daly City, has 20.5 acres (includes 9 buildings).
- ◆ Thornton High School, Daly City, has .09 acres (includes 2 buildings).
- ◆ Serramonte Del Rey (Adult Education and District Office), Daly City, has 56.1 acres (includes 3 buildings).

- ◆ Westmoor High School, Daly City, has 59.1 acres (includes 4 buildings).
- ◆ Oceana High School, Pacifica, has 54.7 acres (includes 10 buildings).
- ◆ Terra Nova High School, Pacifica, has 45.1 acres (includes 14 buildings).
- ◆ The City of Pacifica, a coastal community, has both Oceana and Terra Nova High Schools within its boundaries.
- ◆ The City of Pacifica has a unique topographical pattern. It is comprised of several mountains and hills that lead to the Pacific Ocean. Pacifica has also been a prime area for landslides. In 1982, Pacifica had several severe landslides. In one instance, it claimed the lives of several young children.
- ◆ **Relative Risk & Susceptibility Mapping of each high school site:**

Type of Risk	Jefferson (Daly City)	Thornton (Daly City)	Serramonte (Daly City)	Westmoor (Daly City)	Oceana (Pacifica)	Terra Nova (Pacifica)
Liquefaction	Very Low	Very Low	Very Low	Low	High	High
Shaking Intensity	Violent	Violent	Violent	Violent	Very Violent	Very Violent
Faulting (San Andreas-Peninsula)	Adjacent	Adjacent	Adjacent	Adjacent	Adjacent	Adjacent
Landslides	N/A	N/A	N/A	N/A	Very High (ongoing issue)	High (has occurred)
Erosion	N/A	N/A	N/A	Minimum Danger	Danger	Danger
Wildfire	Moderate	Moderate	Moderate	Moderate	High	High
Flooding (100 yr & 500 yr)	Urbanized Area	Urbanized Area	Urbanized Area	Urbanized Area	Urbanized Area	Urbanized Area
Tsunamis (Not within zoned area)	Urbanized Area	Urbanized Area	Urbanized Area	Urbanized Area	Urbanized Area	Urbanized Area
Mudslides (Ca)	N/A	N/A	N/A	Slight	Very High	High
Hazardous Minerals (Ca) (i.e. Asbestos)	AHERA 3-year Inspection Compliant	AHERA 3-year Inspection Compliant	AHERA 3-year Inspection Compliant	AHERA 3-year Inspection Compliant	AHERA 3-year Inspection Compliant	AHERA 3-year Inspection Compliant
Environmental & Forest Protection >Watershed (Ca)	No Forested or Water Shed Areas	No Forested or Water Shed Areas	No Forested or Water Shed Areas	No Forested or Water Shed Areas	Within the "Milagra Ridge" watershed boundary. (High Wildland Fire Hazard Rating)	Within the "Sweeny Ridge" watershed boundary. (High Wildland Fire Hazard Rating)

- ◆ Hydrology and Watersheds: Water resources in both Milagra Ridge and Sweeny Ridge watershed boundaries include rainfall, springs and streams. Both ridges are comprised of steep coastal bluffs permitting the water to flow into streams which goes directly into the ocean.
- ◆ Both the Milagra Ridge (Oceana High School) and Sweeny Ridge (Terra Nova High School) are classified as **high fire danger zones**, due to their unique topographic characteristics and the combination of plant growth (coastal scrubs, grasses, native forests and non-native trees).
- ◆ During March 2005, the Golden Gate National Recreation Area submitted a Draft of their Fire Management Plan in conformance with the federal Wildland Fire Management Policy. The fire management actions include a range of mechanical

treatments, from hand-tools to heavy equipment, and prescribed burning applied with the goals of fire hazard reduction and resource benefit.

- ◆ Drought, though a potential problem throughout the District, it is not fully assessed. However, the District is working with the “North Coast County Water District” in developing a plan to use recycled water on the Oceana High School athletic fields.
- ◆ Oceana is located on the south-western flank of Milagra Ridge at the edge of a broad alluvial valley east of Highway 1 in the northern part of Pacifica.
- ◆ During the construction of Oceana High School in early 1960’s, the hillside directly behind the school was significantly modified by mass grading and a “steep cut and fill” operation. This made the hill highly susceptible to rippling and erosion.
- ◆ Oceana High School experienced landslides during 1982 due to heavy precipitation, totaling twice the normal rainfall.
- ◆ After the slides of 1982, a geotechnical evaluation was completed on Oceana’s surrounding hillsides. It was determined that the excessive slippage and soil scoring caused the exposure of the bedrock (Greenstone of the Franciscan formation).
- ◆ Several areas were identified as unstable and mediation was recommended. In 1983, with FEMA’s support, the hillside was stabilized and drainage ditches were installed to redirect the rainfall.
- ◆ Again in 1999-2000, Pacifica experienced another excessively wet “El Nino” winter. During this time several hillside homes fell into the ocean. In addition, the Oceana High School hillside experienced significant surface sliding as well (100’ x 60’ area). The hill was graded once again to regain stability.
- ◆ As indicated on ABAG’s mapping, the Milagra Ridge is considered a “mostly landslide” prone area.
- ◆ Currently, the hillside above the area that was repaired in 1982-1983 has shown signs of sliding and significant erosion. The specific area is virtually bare of vegetation and tree growth. Closer examination of the area reveals an exposure of highly weathered, closely fractured greenstone bedrock. Surface soil creep appears to be the dominant type of mass erosion. Initial observation shows no obvious evidence of any deep-seated movement in this area. However, there is great concern about the visible rippling affect of the entire hill and its history of instability.
- ◆ The District is currently consulting a professional geologist on the stability of the hill, and what recommended actions need to be taken.

The District also examined the hazard exposure of infrastructure based on the information on ABAG’s website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>.

- ◆ None of the District’s facilities are in the designated 100-year or 500-year flood zones.
- ◆ Chlorine gas systems located at the District’s pools buildings are susceptible to damage, with an accompanying gas event, in an earthquake.

Finally, the District examined the hazard exposure of its critical school buildings based on the information on ABAG’s website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>.

- ◆ Several of the high schools are located in strategic locations throughout the communities they serve. They have been used as an alternative facility in case of a natural disaster.

- ◆ Jefferson High School is a designated Red Cross emergency shelter.
- ◆ Westmoor High School is a designated Red Cross emergency shelter.
- ◆ Oceana High School is a designated Red Cross emergency shelter.
- ◆ Terra Nova High School is a designated Red Cross emergency shelter.
- ◆ If any of these high schools become damaged, it will cause significant loss to the local communities and victims during any natural disaster.
- ◆ Due to the City of Pacifica's unique geographical location and configuration, it has minimal ingress and egress from and to the surrounding communities. In a crisis, emergency services would more than likely be redirected to the highly populated and industrial cities on the Peninsula. In cases of major catastrophes, this would isolate Pacifica and the District schools for more than 72-hours, forcing Pacifica and the District to be self-sufficient.
- ◆ Oceana and Westmoor High Schools' pool facilities currently have structural concerns, which are at risk during an earthquake.

In spite of the areas of the District that are located in slide-prone areas, there is no repetitive loss properties in the District based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The District plans to continue to work with ABAG to improve the risk assessment information being compiled by providing information on landslide prone areas located throughout the District. The District will also work with ABAG in further developing the hazard impact (for the level of damage to critical facilities and infrastructure) on each of our school campuses as indicated in ABAG's Annex, which specifically states that ABAG will provide further statistics throughout remainder of 2005 and early 2006.

Since these impacts are not fully developed, the District has reviewed the hazards identified and ranked those based on past disasters and expected future influences. The conclusion is that earthquakes (particularly shaking), landslides, and wildfire are more important than tsunamis and flooding. However, if a tsunami and/or flooding occur; it would affect major access roads to and from the District's facilities. Since all our high schools are in close proximity of the San Andreas Fault ("Peninsula"), the District has a major concern about the structural integrity of both the Oceana and Westmoor High School's pool facilities. Neither of these facilities was included in the modernization and seismic improvements made in recent years. In addition, the District's leading concern is the integrity of the hillside on Milagra Ridge behind the Oceana High School. As indicated above, this hillside historically has experienced severe erosion and multiple landslides.

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, Jefferson Union High School District staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting with the Superintendent; Deputy Superintendent, Associate Superintendent of Business; Director of Operations, Maintenance, Health & Safety and Transportation; and the members of the school board at the Board of Trustees regular meeting on March 15, 2005. In addition, administrators of

each of the high schools attended the meeting. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing District programs; which are part of the planning process through Board of Trustees policy review, DSA and fire code enforcement, and the development of the District's Emergency & Disaster Preparedness Plan to its Board Policy [3516 (a)]. Any new activities identified as part of the Annex will be incorporated into these existing mechanisms. The District will be working to identify potential funding sources, including capital improvement budgets, bond issues, and federal or state grants.

These draft priorities were submitted to the District Superintendent for review. The draft priorities were then provided to the Board of Trustees on March 15, 2005. The public was provided with an opportunity to comment on the DRAFT priorities. The final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the District's *Emergency & Disaster Preparedness Plan [Board Policy 3516 (a)]*.

In addition, the District examined the hazard exposure information of the potential hillside areas supplied by ABAG. The District has determined that the combination grading of the hillside during the 1960's construction of Oceana High School, and the work done in 1982-1983 to the hill contributed to the serious conditions that currently exist.

## **The Plan Maintenance and Updating Process**

The Jefferson Union High School District is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Director of Operations-Maintenance will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the District again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The District will ensure that monitoring of this Annex will occur on an on-going basis. However, the major disasters affecting our District and communities, legal changes, notice from ABAG as the lead agency in the process, and other triggers will be used. Finally, the Annex will be an item of discussion in a meeting with each school administrator and superintendents at least once a year in August. At that meeting, the administrators will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The public will continue to be involved whenever the plan is updated and, as appropriate, during the monitoring and evaluation process. At a regularly scheduled “Board of Trustees Meeting”, the District will address any changes to the plan in an open public forum. All public comments will be reviewed. Publicly-initiated practical changes will be integrated into the plan updates whenever reasonable and/or within the scope of the plan.